BIOGRAPHICAL SKETCH

NAME: Rex A. Pegram, Ph.D. **POSITION TITLE:** Research Biologist

EDUCATION/TRAINING

Institution	Degree	Year	Field of Study
North Carolina State University, Raleigh, N.C.	B.S.	1978	Animal Science, Poultry Science, Pre-vet. med.
University of Georgia, Athens, Georgia	M.S.	1981	Toxicology
University of Georgia, Athens, Georgia	Ph.D.	1986	Toxicology
National Center for Toxicological Research, Jefferson, Arkansas	Postdoc training	1987-1990	Toxicology

PROFESSIONAL EXPERIENCE:

1990-1991 Research Associate, Center for Environmental Medicine, University of North Carolina, Chapel Hill, NC

1991-Present Research Biologist, Pharmacokinetics Branch, Experimental Toxicology Division, National Health and Environmental Research Laboratory, U.S. EPA, Research Triangle Park, NC

PROFESSIONAL SOCIETIES:

Research Triangle Park Drug Metabolism Discussion Group (Executive Committee Member)
North Carolina Chapter of the Society of Toxicology

SELECTED AWARDS AND HONORS:

EPA Service Award for Organizing the NHEERL Drinking Water Research Planning Scientist-to-Scientist Meeting, 2003

INVITED LECTURES/SYMPOSIA:

National Drinking Water Stakeholders Meeting on Disinfection By-products, U.S. EPA and Resolve, Washington, D.C., February, 1999: Research Evaluating the Toxicity of Brominated Trihalomethanes
University of Florida Symposium on Drinking Water and Health, Sarasota, Feb., 1999: Toxicology of Disinfection By-products
EPA NHEERL Synergy Workshop, RTP, NC, May,1999: Qualitative Aspects of Toxicokinetics Extrapolation: Rodents to Humans
Second International Conference on The Safety of Water Disinfection: Balancing Chemical and Microbial Risks , Miami, Florida, November, 1999: Disinfection By-Product Pharmacokinetics
OW/ORD Senior Management Drinking Water Research Meeting. RTP, NC. December, 1999: Disinfection By-product and Mixtures Research
International Conference on Exposure Assessment for Disinfection By-Products in Epidemiologic Studies. Ottawa, Canada. May, 2000: Brominated Trihalomethanes: Physiologically-based Toxicokinetic Modeling and a Potential Biomarker of Susceptibility
EPA Office of Water FSTRAC Meeting. RTP, NC. October, 2000: Brominated Trihalomethane Toxicokinetics
DBP Implementation Planning Subcommittee and Office of Water Meeting on DBP Research. RTP, NC. November, 2001: Trihalomethane Pharmacokinetics Research: Key Findings
2002 International Conference of the International Societies of Environmental Epidemiology and Exposure Analysis. Vancouver, BC. Aug. 11-15, 2002: Bromodichloromethane toxicokinetics: linking exposure to effect

ASSISTANCE/LEADERSHIP PROVIDED TO THE SCIENTIFIC COMMUNITY:

World Health Organization Expert Panel, Environmental Health Criteria for Disinfectants and Disinfectant Byproducts, IPCS, Geneva, Aug., 1998.
Organizing Committee, Biomathematical Modeling of the Risks of Disinfection By-Products Workshop, University of North Carolina Center for Biomathematical Modeling in Risk Analysis, April, 1999.
Planning Committee for International Conference on Exposure Assessment for Disinfection By-Products in

Epidemiologic Studies. Health Canada. Ottawa, Canada, Spring, 2000.
Health Effects Committee, Research Planning Workshop for Drinking Water Disinfectants and Disinfectant Byproducts, Vail, Colorado, July, 2001
EPA representative on the Executive Committee of the Research Triangle Park, NC Drug Metabolism Discussion Group, 2002-present.
Special Health Advisor, Chlorination Disinfection Byproducts Task Group, Health Canada, Ottawa, Ontario, Canada, June, 2003-present.

ASSISTANCE/LEADERSHIP PROVIDED TO THE AGENCY:
Chairman, NHEERL Drinking Water Steering Committee for Implementation Planning, 2001-present.
Drinking Water Research Implementation Planning Briefings for NHEERL Upper Management, October, 2001, Molly Whitworth, ORD, November, 2001, Jeanette Wiltse, Office of Water, December, 2001
Served as Acting Chief, Pharmacokinetics Branch, ETD , September, 2001-January, 2002
Served as Pharmacokinetics Committee Member, EPA Workshop on Alternative Models for Drinking Water Research, Duluth, MN, August, 2002
Organizer and presenter, OW Senior Management Briefing on NHEERL Drinking Water Research, Sept. 12, 2002
Served as Health Effects Committee Member, EPA Workshop on Water Security, Cincinatti, Ohio, Nov., 2002
Lead organizer and Chair, NHEERL Drinking Water Research Planning Scientist-to-Scientist Meeting, Feb., 2003

PUBLICATIONS (From January 1, 1998 to present, 12 out of a total of 44 publications):
1. Keegan, T.E., J.E. Simmons, and R.A. Pegram (1998). NOAEL and LOAEL determinations of acute hepatotoxicity for chloroform and bromodichloromethane delivered in an aqueous vehicle to F344 rats. *J. Toxicol. Environ. Health*, 54, 101-111.
2. Lilly, P.D., M.E. Andersen, T.M. Ross, and R.A. Pegram (1998). A physiologically based pharmacokinetic description of the oral uptake, tissue dosimetry and rates of metabolism of bromodichloromethane in the male rat. *Toxicol. Appl. Pharmacol*., 150, 205-217.
3. Pegram, R.A. (1999). Toxicology of trihalomethanes. In: Environmental Health Criteria Monograph for Disinfectants and Disinfectant By-products. International Programme on Chemical Safety. World Health Organization, Geneva.
4. Landi, S., N.M. Hanley, S.H. Warren, R.A. Pegram, and D.M. DeMarini, 1999. Induction of genetic damage in human lymphocytes and mutations in *Salmonella* by trihalomethanes: role of red blood cells and *GSTT1-1* polymorphism. *Mutagenesis* 14: 101-104.
5. Pegram, R. A. (2000). Disinfection By-product Pharmacokinetics. In Proceedings of the Second International Conference on the Safety of Water Disinfection: Balancing Chemical and Microbial Risks. International Life Sciences Institute, Washington, D.C.
6. Allis, J.W., Brown, B.L., Zhao, G. Pegram. R.A. (2001). The effects of inhalation exposure to bromodichloromethane on specific rat CYP isoenzymes. *Toxicology* 161: 67-77.
7. Allis, J.W., B.P. Anderson, G. Zhao, T.M. Ross, and R. A. Pegram (2002). Evidence for the involvement of CYP1A2 in the metabolism of bromodichloromethane in rat liver. *Toxicology* 176: 25-37.
8. Arbuckle TE, Hrudey SE, Krasner SW, Nuckols JR, Richardson SD, Singer P, Mendola P, Dodds L, Weisel C, Ashley DL, Froese KL, Pegram RA, Schultz IR, Reif J, Bachand AM, Benoit FM, Lynberg M, Poole C, Waller K. (2002). Assessing exposure in epidemiologic studies to disinfection by-products in drinking water: report from an international workshop. *Environ Health Perspect.* 110: Suppl 1:53-60.
9. Ross, Matthew K. and Rex A. Pegram (2003). Glutathione Transferase Theta 1–1-dependent Metabolism of the Water Disinfection Byproduct Bromodichloromethane. *Chem. Res. Toxicol.* **16**, 216-226.
10. Ross, Matthew K. and Rex A. Pegram (2003). [^{35}S]-labeling of the *Salmonella typhimurium* glutathione pool to assess glutathione-mediated DNA binding by 1,2-dibromoethane. *Chemico-Biol. Interact*. In press.
11. Landi, S., Naccarati, A., Ross, M.K., Hanley, N.M., Daley, L., Devlin, R., Vasquez, M., Pegram, R.A., and DeMarini, D.M. (2003). Induction of DNA Strand Breaks by Trihalomethanes in Primary Human Lung Epithelial Cells. *Mutation Research*. In press.
12. Ross, M.K. and Pegram, R.A. (2003). Biotransformation and Genotoxicity of the Water Disinfection Byproduct Bromodichloromethane: DNA Binding Mediated by Glutathione Transferase Theta 1-1. In internal review; to be submitted to *Toxicol. Appl. Pharmacol.*